WHAT IS CLAIMED IS:

Sub B1

1. A cell creation method of control line signals for an ATM network comprising a plurality of multiplexing equipments realizing communication among information terminals, comprising the steps of:

creating cells from user data to be transmitted between a pair of the communicating information terminals and control line signals indicating control line information relating the transmission of said user data at said multiplexing equipment connected to said pair of the communicating information terminals respectively, and

transmitting said cells including said user data and said control line information between said pair of the communicating information terminals.

2. A cell creation method of control line signals in accordance with Claim 1, wherein

a portion of a cell payload to be transmitted is mapped for transmitting said control line signals when creating said cell from said control line signals, and

said control line signals are multiplexed into said cell at the transmission side and separated from said cell at reception side.

3. A cell creation method of control line signals in

accordance with Claim 2, wherein

signal RS/CD of said control line signals is extended for a predetermined period before said signal RS/CD is multiplexed.

4. A cell creation method of control line signals in accordance with Claim 1, wherein

said multiplexing equipment connected to said pair of the communicating information terminals has two operating modes which can be selected, one being a control line signal transmission mode for transmitting said control line signals by creating said cell from said control line signals, the other being a constant fix mode for executing a full duplex communication.

5. A multiplexing equipment, being one of a plurality of multiplexing equipment included in an ATM network for realizing communication between information terminals, connected to one of the communicating information terminals, comprising:

multiplexing means creating cells from control line signals outputted from one of said information terminals at the transmitting side, and

separation means separating said control line signals from said cells transmitted via said ATM network and outputting said separated control line signals to one

of said information terminals at reception side.

6. A multiplexing equipment, being one of a plurality of multiplexing equipment included in an ATM network for realizing communication between information terminals, connected to one of the communicating information terminals, executing one of said cell creation methods of control line signals in accordance with Claims 1-4.